MASTER OF SCIENCE BY RESEARCH

Matching project management education and training to the needs of the construction industry in Kuwait

Almezaini, Mohammad

Award date:
2008

Awarding institution:
Coventry University

COVENTRY UNIVERSITY

DEPARTMENT OF BUILT ENVIRONMENT

Matching Project Management Education and Training to the Needs of the Construction Industry in Kuwait

By:

Mohammed Almezaini

Advisor:

Dr. Robby Soetanto

ACKNOWLEDGMENT

Many people have encouraged and supported me throughout the writing of this dissertation. I would like to acknowledge their contribution individually. First and foremost, I would like to sincerely thank Dr. Robby Soetanto and Dr. Messaoud Saidani for their senior advices and constructive comments. Secondly, I would like to express my gratitude to my family in general and my wife in particular for their continuous support and assistance without which this dissertation would have remained incomplete and unfinished. Finally, thanks to all individuals who sacrificed their time to participate in this study.

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Abstract

The last decade has witnessed a growing prosperity in the Middle East. This trend has created challenges for the construction sector in terms of attracting talented employees and highly skilled project managers. This dissertation argues that the current level of education and training courses available for project managers in the Kuwaiti construction sector are insufficient to meet the requirements of their work. Thus, the primary aim of this dissertation is to explore the level of education and training currently available to project managers in the construction sector in the State of Kuwait and to assess the requirements of project management skills and education in that sector. To achieve this purpose, data were collected via a questionnaire instrument from 80 project managers. The results showed that project managers put great emphasis on training for improving their work. Project managers' skills assessment suggested that more emphasis should be placed on 'technical skills', 'organisational skills' and 'communication skills.' The organisational assessment revealed a lack of consideration for training courses and education in the strategic direction of construction firms. Based on these results, establishing a linkage between training and performance improvement processes in construction organisations is strongly recommended.

CHAPTER 1

INTRODUCTION

1.1 PROBLEM STATEMENT

Concerns with the relationships between training, education and labor markets are deeply-rooted in the human capital theory (Al-Kawaz, 2002). One of the most typical treatments of such relationships is the link between the level of education and the level of income in labor markets. Unlike investment in physical capital (e.g. building and materials), investment in human capital is pretentious since it involves the conveying of existing stock from one generation to another (Salehi and Isfahani, 2001). Many conferences have been held in the Gulf Cooperation Countries (GCC) to enhance the linkages between education and labor markets as crucial elements of the human capital investment (Al-Kawaz, 2002). Due to the construction boom in the GCC which include Kuwait, Saudi Arabia, Bahrain, Qatar, Oman and United Arab Emirates, companies in the construction sector have encountered serious challenges related to attracting talented, highly skilled and educated project managers capable of carrying out required works.

The skills scarcity and the lack of educational programmes and sufficient training courses in the GCC member states for project managers could be attributed to the massive increases in the regional construction activities as well as the growth in international markets. Because of the growing competition among companies in the GCC's construction sector, salaries of professionals project managers have monitored a steep rise of 12.8% on average in 2006 as shown in Figure 1. This percentage is considered the highest among all sectors in these countries. According to World Salaries and Pay scale report, the salaries of

project managers compared with other employees in construction are relatively high. Figure 2 discloses that in Kuwait, IT project managers are ranked second to Information Technology Managers in terms of average salaries.

Figure 1*: Average Salary in 2005-2006*

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Source: www.gulftalent.com

Figure 2: *Average Salaries in Kuwait*

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Source: www.payscale.com/research/KW/All_People_in_All_Surveys/Salary

Companies in the GCC's construction sector have resorted to hire younger employees and plan at new markets for eligible expertise to conduct the work. Lifestyle issues are also becoming a concern, with the long work hours (around six and half day working week in GCC countries). The news agency, AME Info (2007), claims that Kuwait construction industry is growing rapidly across all sectors and witnessed the award of over US$ 8 billion worth of projects to contractors during the year 2005. However, the shortage of skilled project managers in the State of Kuwait has imposed a serious challenge in the construction sector.

A review of the literature reveals that prior studies related to training and education investments in the construction sector are mostly conducted in the USA and Europe (Turner, 1996). Although such studies have contributed substantially to the literature on project management, their findings may not be applicable to other countries, due to differences in skill requirements, available talents, type of education systems and training courses available in this sector and national culture. The Gulf region is one of the most prosperous regions in the world (Azzam, 1989). However, the current level of managerial skills, education and training necessary for undertaking construction work in the State of Kuwait has not been empirically examined. That is, little is known about the level of the skills of project managers in Kuwaiti companies. This dissertation aims at exploring the extent of project management skills and education that are available in the construction field in the State of Kuwait and assessing the existing education and training courses as well as the role of organisational setting in enhancing project managers' skills and talents.

1.2 BACKGROUND OF THE STUDY

For the last three years, the construction sector in the GCC has been growing at a remarkable pace. The main drivers for this growth have been favorable economic conditions, high oil revenues and excess liquidity, immigration, and the introduction of new property laws. Other factors that have contributed to that trend include high government capital spending in development projects, availability of credits and the establishment of new real estate funds. The GCC's development plans span the full range of construction disciplines, including residential and commercial buildings as well as civil,

infrastructure and logistics projects. The construction sector's growth in the GCC has attracted large numbers of investors from all over the world. More multi-national firms thus have started business in the area, while many other global firms have extended their activities beyond their home.

The prevalent construction activity in the United Arab Emirate (UAE) has led the Dubai government to embark on growth plans and established the constructive regulatory regime, that drives construction booms. Because of its successful diversification policies, UAE non-oil GDP almost doubled between 1995 and 2003 (Winckler 2004). In Qatar, the 2006 Doha Asian Games have incurred much of the thrust for the construction sector to expansion. In the Kingdom of Saudi Arabia, a recent effort to enhance this sector has been clearly observed with a number of striving developments aimed at improving economic growth and creating employment opportunities. Bahrain has traditionally served as a service centre for the GGC member states and has developed as a financial centre since the early 1970s to handle the recycling of petrodollars. In 1975, it established an offshore banking industry. Following the opening of the causeway to Saudi Arabia's Eastern Province in 1986, Bahrain also boomed in construction sector, and invested in the development of its management skills and education investment.

The construction sector in the State of Kuwait plays an important role in improving economic growth. By virtue of its position as a gateway to Iraq as well as its oil and gas projects, the Kuwaiti construction sector has expanded significantly. However, as shown in Table 1 Kuwait has attracted the lowest amount of Foreign Direct Investment (FDI) among GCC member states. Between 1990 and 2000, the annual average FDI inflow to the

country was US $58 million, rising to only US $110 million in 2006. These low levels of FDI could be attributed to the existing low managerial skills, education, and training of Kuwaiti project managers.

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Source: UN Conference on Trade and Development 2007 (www.unctad.org)

1.3 CONSTRUCTION SECTOR IN KUWAIT

According to Ventures Middle East report, the region's market went from strength to strength and reached new height in terms of contracts awarded and projects broadcasted. The outlook for 2008 looks equally lighthearted across most sectors including real state, infrastructure, building, power and water and petrochemicals. The total value of contracts awarded in the region has more than doubled in the past two years.

The activity of the Kuwaiti construction industry is in line with the general trend emerging in the GCC member states. The State of Kuwait has been going through a complete head to toe overhaul. The current local real estate companies, in the wake of the new confidence in the market, has already announced a handful of mega projects including the US $5,500 million Khabary City project, planned by Efad Holding which is a subsidiary of Al-Dar First Holding, and the highly ambitious Madinat Hareer (City of Silk) in Subiya, predicted to cost more than US $86,000 million. When completed, the latter project would include one of the tallest towers in the world, and numerous housing, health, education, environmental, business, and tourist destinations.

A host of smaller projects also will come on stream, including individual tower projects and various housing schemes. At the present, Kuwait is planning to invest nearly US $64,000 million in its hydrocarbon sector over the next 15 years as it seeks to ramp up both refining capacity and oil production. The lion's share, nearly US $26,000 million, will be invested upstream domestically as the country aims at attaining the goal of producing 4 million barrels a day of crude oil by 2020, while US $17,000 million will be invested downstream. As for the remainder, US $8,000 million will be spent in the local petrochemical industry, US $7,000 million on global downstream schemes, including a planned integrated refinery and petrochemical complex in Southern China, US $4,000 million on upstream prospect overseas through Kuwait Foreign Petroleum Company (KUFPEC), and US $2,000 million on acquiring new crude carriers.

The strategy of the country's petrochemical sector is to achieve a minimum production rate of 100 million barrels of oil equivalent by 2010 outside Kuwait. In addition, they are looking at new opportunities in growing markets, especially China and India. In the energy sector, Al Zour Power Plant Expansion in the North and Al-Shuaiba Power and Desalination Plant are gathering momentum with the bids predicted to be submitted soon. Substantial investment has been earmarked for infrastructure development and upgrade schemes. Kuwait City Ring Road is a prestigious project in the pipeline in addition to construction or upgrade of 1st, 2nd, 3rd, 4th, 5th and 8th Ring Roads, Jahra-Subiya Expressway scheme.

Resource availability and logistics are sensitive areas to be tackled efficiently. Material costs will remain crucial. However, in the second half of the year 2008, prices are expected

to decrease as new cement capacity begins to come on line and international steel prices have been stabilised. A severe shortage of construction professionals and skilled laborers is hampering Kuwait's anticipated economic growth. A key obstacle currently facing human resource managers in the construction sector is the unavailability of experienced and skilled project managers.

1.4 PURPOSE OF THE STUDY

Due to scarcity of research on the area of project management in the Middle East in general and the State of Kuwait in particular, this study attempts to fill this gap through an empirical investigation of the needs of construction managers for training courses and educational programmes. The overall purpose of the present research is exploratory and descriptive in nature. This study aims at exploring the level of education and training currently available to project managers in the construction sector in the State of Kuwait and assessing the requirements of project management skills and education in that sector.

By recognizing the importance of human capital investment and long-term return, this dissertation aims at highlighting the need of Kuwaiti project managers to training opportunities that help their organisations achieve higher profitability and market share in the global market. The main objectives of this research can be summaries as follows:

1. Assess the current level of project managers' skills and their implementation in the construction sector.

2. Assess project managers' experiences in the construction sector through the need to education and training courses.
3. Assess the availability of education and training programmes in the construction sector.
4. Assess the construction organisations in terms of providing training opportunities that are suitable for the needs of Kuwaiti project managers.

1.5 SIGNIFICANCE OF THE STUDY

This study derives its significance from its potential contribution to the theoretical knowledge of project management skills and development and to the practice of project management in a developing country. The present study is mainly intended to bridge the gap of the empirical research on training and education in the construction sector in the State of Kuwait. The findings of the study are expected to contribute to the knowledge about training and education provisions for project mangers in the Kuwaiti construction sector. Finally, this study is expected to present new evidence on the importance of training and education programmes for those who work in the construction sector. At the practical level, this study is expected to help the construction sector in Kuwait understand the current skills level and talents in the local market and determine to what extent these talents need to be developed and enhanced by education and training courses for the purpose of ensuring an efficient management of projects.

1.6 ORGANISATION OF STUDY

This dissertation is organised into five major chapters. Chapter 1 provides a discussion of the nature, purpose and significance of the study. Chapter 2 presents an extensive review of the literature on project management for the purpose of laying out the theoretical foundation of the study. Chapter 3 presents the research methodology which includes sample selection, the questionnaire development and data collection procedure. Chapter 4 reveals the results and discussion of the study. Finally, Chapter 5 presents the summary and conclusions of the study.

CHAPTER 2

LITERATURE AND THEORETICAL BACKGROUND

This chapter presents a review of prior studies on the importance of training and education that could serve as a framework to understand the need for human investment in the construction sector in the State of Kuwait. This chapter is intended to provide an overview of project management practices in relation to education and training and to assess the level of needs in the Kuwaiti construction sector.

2.1 PROJECT MANAGEMENT DEFINITIONS

Typically, a project is defined as a set of activities that use available resources, such as money, people, materials, energy, space, provisions, communication, and quality, to satisfy pre-defined objectives. According to the Project Management Body of Knowledge (PMBOK), project management refers to the application of skills, knowledge, tools and procedures to project activities to meet project requirements. Project management is

accomplished through the application and integration of the project management processes of initiating, planning, executing, monitoring and controlling, and closing (PMI, 2004).

Project management is a planned and organized effort to accomplish a specific one-time project, for instance, construct a building or implement a new computer system. Project management develops a project plan, which includes defining project goals and objectives, specifying tasks or how goals and objectives will be achieved, what resources are needed, associated budgets and timelines for completion. It implements the project plan, and monitors programme. Project management usually pursues major phases (with various titles for these phases) together with feasibility study, project planning, implementation, evaluation and support and maintenance.

Project managers can be found in the construction sector and many industries nowadays, from construction and information systems to financial services, healthcare, education and training. With wide range of applications, people who undertake projects have various backgrounds and bring varying levels of experiences as practitioners working in the project management profession. For the role of project manger or project team members, individuals should gain an understanding of the processes and knowledge areas, which are common to all projects.

A project manager can broadly be defined as an individual who has the overall responsibility for the spare planning and carrying out of a project. The project manager must have a combination of skills including an ability to ask penetrating questions, resolve interpersonal disputes and detects unstated assumptions as well as more systematic

management skills. It follows from the above that a project manager is a person who is in charge for making decisions both large and small, in such a way that risk and uncertainty are reduced. Every decision by project manager should be taken in such a way that it brings benefits to the project. Most people still desire to have their projects accomplished on time, meet quality goals, and not cost more than the allocated budget. For most people, however, time and money are critical and that what makes project management of paramount importance today.

2.2 TRAINING AND EDUCATION

The best way to improve construction performance and satisfy clients is to offer training courses and education to all employees including project managers who undertake all kind of works. Becker (1975) differentiates between general and specific training courses. By employing an economic approach to training that focuses on the incentives for funding training and the relative benefits and risks accruing to the employer and employees, Becker stated that general training is useful in many institutions beside those providing it and specific training increases the productivity of employees in that particular firm. Bird (1993) views training as crucial for providing employees with the necessary knowledge to bring about quality improvement across the company. Batten (1992) describes the magnitude of education and training and how it could lead to accomplishment and success of projects.

To ensure successful training, Porter and Parker (1993) identified four distinctive features: namely, 1) training must be prospect as a constant process, 2) training should be focused so

that people receive proper courses at the appropriate level of their needs, 3) training should be planned for the future to include the development of total quality skills and techniques, and 4) training materials must be made customised to suit the particular organisation. Clinton, et al. (1994) believe that project managers require three basic areas of training and development: instruction in the philosophy and principles of Total Quality Management (TQM); specific skills training such as the use of different TQM tools; and interpersonal skills training to improve team problem-solving abilities.

Schonberger (1992), Riley (1993) and Mcdonnel (1994) regard training as fundamental in transforming workers so that they can function in the demanding TQM environment. For effective quality training, however, it must be planed and deliberated in a systematic and objective manner. Quality training must be continuous to meet not only changes in technology, but also changes involving the environment that an organisation operates its structure and the most important of all, the people who work there.

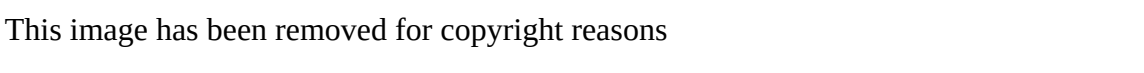
It is important here to note that there is a major difference between employee training and education when talking about construction and projects. Aaron (1997) explained that education typically takes place in universities and involves a transfer of knowledge through the use of recognised methods such as lectures and directed discussion. For the purposes of this study, the operational definition of training (and progress) is adopted from that presented by the Organisation for Economic Co-operation OECD (1997): '*all the various processes by which an individual develops the competencies required for present and future employment-related tasks*.' This definition is sufficient enough to allow for a wide range of training and development activities to be integrated and to exclude activities

unrelated to employment. This definition encompasses both present and potential capabilities.

2.3 TRAINING AND EDUCATION IN STATE OF KUWAIT

According to United Nations Educational, Scientific and Cultural Organisation (UNESCO), 12.7% of government spending in Kuwait is directed to education (Figure. 3). This percentage can be compared with that of 11.7% in the United Kingdom and 14.4% in the United State. This gives an indication about the awareness of the importance of education in the State of Kuwait and how this awareness could contribute significantly to the performance of the construction sector as well as the rest of the sectors in the country.

Figure 3*: Kuwait Government spending in education*



Source: www.unesco.org

2.3.1 COLLEGES OF CIVIL ENGINEERING

Courses in project management are mostly offered in Kuwait by the Civil Engineering Department at Kuwait University. Nevertheless, it is important to note that the government

should be aware of the population expansion and should support developing new universities. Moreover, the private universities should start to open engineering departments to help fulfill the need in project management to construction industries.

The large construction projects in the State of Kuwait require proper level of education and training courses, high level of project managers' skills and well awareness of project management function. Thus, the investigation in this topic is important to evaluate the level of education and training to number of labor market. The recent statistic show that more than 26,5 thousand civil engineers are working in Kuwait, but only two training centres specialise in the provision of training courses in the area of project management. These centres are the Kuwait Institute for Scientific Research (KISR) and the Kuwait Society of Engineering (KSE), and both are government-funded institutions.

The College of Engineering in the State of Kuwait provides quality engineering education for the requirements and need of the society, and the institutional vision to develop an elite College as the leading engineering institutions in the Middle East countries, recognized for its outstanding education, research and outreach programmes, and for the quality, character and integrity of its alumnae. The College endeavors to create an energetic academic and research environment, keeping pace with technological and scientific developments for addressing immediate and long-term needs of the society.

The Engineering programmes are evaluated by the Accreditation Board for Engineering and Technology (ABET), and accredited to Computer, Chemical, Civil, Mechanical, Electrical and Petroleum Engineering Programmes in the USA. The College recently

established the headquarters of Academic Assessment to promote continuous assessment of programmes for academic excellence.

The Department of Civil Engineering in the State of Kuwait offers a Master of Science programme in Civil Engineering. Part-time and full-time students are admitted to this programme. Research requirements include either thesis or non-thesis options. The programme is intended as a means for developing closer affinity to basic research and solving applied problems. The values of the programme reflect an interdisciplinary nature and embody flexibility and choice difference to suit a multitude of needs. The Department of Civil Engineering offers courses and research opportunities in the following fields: Water Resources and Environmental Engineering, Construction Management, Geotechnical Engineering, Transportation Engineering, Structural Engineering .

2.3.2 TRAINING CENTRES

The number of training centres in Kuwait is small. There are around 30 centres giving training courses around the country, and only one of these centres provides certification in Project Management Professional (PMP), that is, KSE. The PMP course delivered by KSE comprises two-week lectures by international trainers followed by a two-part written and oral examination. The PMP course is offered twice a year and the number of participants in each course is limited to 20-30 engineers . KISR is fully aware of the importance and effectiveness of training that contributes to the development of society by providing the latest information in all vital areas. Table 2 reveals the average percentage of outside participants in the training course offered by KISR during the period between 1995 and 2000 is nearly 21%, which is quite low.

Table 2*: Statistic for the courses in KISR*

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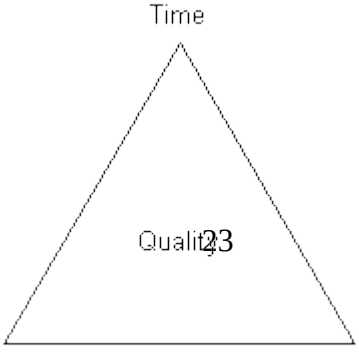
Source: www.kisr.edu.kw

KISR offers training courses in various areas. There are some courses related to project management, such as (Quality Control – Risk Analysis - Developing Competitive Projects) other training centres in Kuwait provide courses in general management and planning, but overall such courses are not specializing in project management. Training courses and programmes focusing on skills development are taught either in business and trade schools or business training sessions. Education improves information and training improves skills. Actual experience with project management indicates that the majority of organisations use knowledge for better control and for better customer relations, possibly increasing project's return on investment. (Roy, 2007).

2.4 TIME AND OTHER LIMITED FACTORS

Evidence from prior studies suggests that the performance of project management in delivering new building assets that satisfy organisational requirements in terms of time, cost and quality considerations is lacking. Like humans, projects tend to be executed under certain constraints. Basically, these constraints have been listed as scope, time, and cost. Depicted in Figure 4, these three crucial elements are commonly referred to as the Project Management Triangle, where each angle represents one of the three constraints.

Figure 4. Project Management Triangle



The time restriction refers to the sum of time available to accomplish a project. The cost limitation refers to the budgeted amount of money available for the project. The scope restriction refers to what must be done to create the project's end result. These three restrictions are often competing constraints: increased scope typically means increased time and increased cost, a tight time limitation could mean increased costs and reduced scope, and a tight budget could imply increased time and reduced scope.

One side of the triangle cannot be changed without impacting the others. A further refinement of the limitations separates product quality or performance from scale, and turns quality into a fourth constraint. Mikkelsen and Riis (1998) state that another way to evaluate the project could be by focusing on the requirements of stakeholders. Project success would then be to fulfill these needs, even though they are expressed during the project execution phase.

Time required for each task is estimated. It is significant to divide the work into several smaller pieces so that it is easy to measure progress. A Work Breakdown Structure (WBS) is generally used to develop the list of everyday jobs each of which is then given a time estimate. Price to develop a project depends on several elements including; labor rates, material rates, risk administration, plant (buildings and machines), equipment, and profit. When hiring an autonomous consultant for a project, cost will typically be determined by the consultant's or firms per diem rate multiplied by an estimated quantity for achievement.

The overall definition of what the project is supposed to achieve and a specific description of what the end result should be need to be accomplished. A major element of scope is the quality of the final result. The amount of time put into individual tasks determines the overall quality of the project. Some tasks may necessitate a given amount of time to be completed sufficiently, but given more time could be completed outstandingly. Over the course of a large project, quality can have a considerable impact on time and cost.

Successful training programmes require a significant investment in terms of both human financial and resources. They also can take up an immense deal of time that can negatively affect production schedules and deadlines. The organisation is usually aware of these factors and hence tends to question the necessity of employee training programmes when revenues are scarce and or production demands are at a peak. Furthermore, some institutions decide on training topics based on session titles and (or) other arbitrary considerations and determined time allotments. These are critical mistakes, but unfortunately they are features of many companies.

Once the training required has been identified, the training manager, working intimately with other concerned bodies, should decide how much time will be realistically needed to provide employees with the new competences. The desired outcome, for example, the specific skills that the employees are to obtain, should be involved in establishing the length of an individual training courses. This is another reason why the goals and objectives of training programmes are of critical importance.

Many growing organisations have also acknowledged the prudence of changing the focus of their training courses away from the trainer and more towards the trainee. Trainers, often out of sheer inevitability, tend to spend an inordinate amount of time trying to depict how best to fit a given subject into a particular timeframe. Their preparation is focused more with staying within the established time limitation than with the actual development of usable skill sets. The large number of available instructional technologies has helped to put the employee at the centre of the training courses process. The length of the training meeting (and the entire training course, for that matter) should be depicted solely by the amount of time estimated to achieve the desired outcome. In other words, the time devoted to a given training subject should be determined by how long it takes for employees to master the skills that the company deems important.

Finally, having large numbers of project managers in each training session appears cost-effective. The construction company appears to be getting more beat for the cash. But this perceived benefit is only a delusion when the participants in those meetings fail to acquire the required skills and competences. Large groups are stabilizing only for the dissemination of information. They are not realistic for most training purposes. In short, multiple training sessions carried out over a considerable time span with minimal numbers of trainees in each meeting seems to be the most successful way to conduct training.

2.5 SKILLS AND COMPETENCIES

Many studies have continually shown that, for both project managers and staff, practical knowledge and talents are essential to project success (e.g. Jiang et al., 1996; Jawaharnesan

and Price, 1997; Toney and Powers, 1997; Zimmerer and Yasin, 1998; Thite, 1999; Barad and Raz, 2000; Loo, 2002).

Pinto and Slevin (1987) have, with their project implementation profile made a significant contribution to the field of project management insofar as they have demonstrated how to utilize critical success factors to ensure successful project. They considered as critical success factors: project mission (goals and direction), top management support, client consultation, project schedule, personnel (recruitment and training), technical tasks (availability of the required technology and expertise), monitoring and feedback, client acceptance, communication, and trouble shooting (ability to control unexpected crises and deviations from plan).

Efforts to capture the leadership element of project managers by the works of Batten (1991) as well as that of McLean and Weitzel (1991) have led to the concept proposed by Verma (1996, p. 219) that “Project leadership is the ability to grasp things done well through others”. In the same bases, Verma goes on to define a set of requirements defining what a good project leader should do and in the process, raises the question of what is the dissimilarity, if any, between project management and project leadership.

Beside the competency literatures, there are extensive literatures that focus specifically on the concept of project management success. This is the traditional view which concentrates on the successful accomplishment of time cost, and quality objectives and the quality of the project processes or work. These subjects are regarded as the responsibilities of project management and a flourishing result on these would be recognized a project management

success. We might also include conditions such as knowledge creation and dissemination, which today many project owners include as factors that decide if the project is successful or not (Fusco, 1997).

In the same basis, Kerzner (1998) extensively studied quality in project management and he developed a six-component model of excellence that contains integrated processes, culture, management support, training sessions and education, informal project management, and behavioral excellence.

In the same year, Zimmerer and Yasin (1998) focused on project leadership. For example, in their study they reported that American project managers, the highest rated characteristics for effectual project managers and for project success were team building, demonstrating trust, communicating, and focusing on results among others. In the same way, the key project tools and techniques for success were budgeting, project scheduling, and execution planning, among other tools. Baccarini (1999) adopts a somewhat different ways and uses the descriptor, product success, to illicit the impact of a project when its execution is finished, for example; meeting the project owner's strategic organisational objectives, satisfaction of users' need, and pleasure of stakeholders' need where they relate to the product.

Most recently, in his research Loo (2002) realized that the sample of project managers gave technical and people skills equal significance for best practices. It can be safely stated that project achievement and a best practice project organisation will not occur if the

project managers and staff do not have the core technical and people skills to do the job; these are the necessary contribution ingredients because projects are done by people.

In the same study, Loo (2002) examined the internal best practices with a sample of project managers from thirty four Canadian organisations that work in projects and construction sector. He found different segments of practices between “technical” and “people” practices. The technical best practices were: having an integrated project management system; effective scope management of projects; scheduling, effective project planning, and controlling; and effective contract management.

In the same bases, Loo (2003) clearly explained that the technical or practical skills set includes project managers which was uttered to include preplanning and contingency planning, organising, controlling, performance, contract management and quality management, resource management and cost control, scope management, and project documentation. The project managers skills set that emerges from the literature comprises effective interpersonal communication, effective interpersonal skills required to manage dispute and conflict within the team and with the employees, and the ability of the manager to encourage project staff.

The present study takes in consideration the three types of skills that effective managers use: technical, human interpersonal and conceptual. The technical skills of managers, like the technical skills of drawing of an artist, are apparent as they do their work. A manager's work to counsel a participant in a programme about performance, or develop a budget for a project requires technical skills. Humane or interpersonal skills are the abilities of managers to get along with other people, to understand them, and to lead them in the

workplace. Conceptual skills ability to understand the interrelationship of ideas or elements in relation to the totality. Under the three types of the abovementioned skills, there are ranges of skills that project manager must undertake when control project. These skills are shown in Figure 5.

Figure 5: *Project Management Skills*

In the following Chapter, the author will survey the project manager skills to present the empirical data about Kuwaiti project managers who work in the construction sector. Results from extant studies provide compelling evidence that project managers' leadership

style constitutes a major feature of successful performance of an organisation in carrying out its goals and objectives (e.g. Zhu et al., 2005).

According to Lewis (2005) and CIOB (2002), construction project managers must recognize the mission and vision of the organisation, then they must see how the projects they are managing interconnect with their organisation's mission, and they must push the project to ensure that the interests of the organisation are met. Each construction project will have some specific goals to meet, either contributing to business growth or increasing productivity and profit. In other words "Profitable" really means achievement of the optimum profit available for the project (William & Johnston 2003).

2.6 SUMMARY

A review of the literature of project management reveals that practical knowledge and skills are necessary to project managers' success in the construction sector. Many organisations considered knowledge creation and dissemination as major factors that influence the success of projects. The review of literature uncovered the importance of training courses and programmes and how it gives project managers the necessary knowledge to bring about quality improvement across the company. Training programmes can help to improve construction performance and satisfy project managers who carry all kind of works. Finally, project management success depends not only on skills and knowledge but also on the successful accomplishment of time, cost, and quality objectives as well of the project processes. Organisations in the construction sector should focus on all these factors together to survive in the global competition.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter presents the methodology used in this study. It is divided into three sections. The first section discusses the questionnaire development where the second section presents the study population and sampling. The final section discusses how the collected data were analyzed.

3.1 QUESTIONNAIRE DEVELOPMENT

To accomplish the objectives of this study revealed in Chapter 1, the data for this study were collected via a questionnaire instrument. The items of the questionnaire were adopted from previous project management studies (e.g., Thompson and Perry, 1992; Jiang, et al., 1996; Jawaharnesan and Price, 1997; Toney and Powers, 1997; Zimmerer and Yasin, 1998; Ahmed and Saram, 1998). These items were translated into Arabic, and the first version of the questionnaire was tested in a pilot study that consisted of eight project managers via face-to-face interviews. The main objectives of these interviews were to determine the clarity and readability of the questionnaire and to solicit feedback from these experienced subjects about whether there were any missing important items. The interviews lasted between half an hour and two hours; and based on the information

gathered from the pilot study it was decided that the questionnaire is valid and adequate to serve the study's purpose. The final version of the questionnaire consisted of three sections, namely Project Managers Skills and Experience Assessment, Organisational and Training Assessment and General Background. Appendix A shows the English-version of the questionnaire. The Arabic version of the used questionnaire is shown in Appendix B.

The first section of the questionnaire consisted of two parts. Part A asked project managers to determine the degree of their management skills, using a five-point Likert scale ranging from “Excellent” to “Poor”. These skills have already been presented in Chapter 2, and are summarised in Table 3. Part B asked respondents to indicate their level of agreement or disagreement to some generally accepted project management skills. These questions are presented in Table 4.

Table 3*: The main project management skills*

1. Leadership skills 2. Communication skills 3. Coping skills 4. Team building skills 5. Technical skills 6. Organisation skills

Table 4*: The experience questions to project managers*

1. The skills are more important than education in project management to the employee who work in construction industries.
2. Working in the construction sector requires a project manager to be an expert in project management.
3. It is important for a project manager in the construction sector to hold a certificate in PMP.
4. The employee who works in the site should be more experienced in project management than another who works in the office.

5.	I am interested in improving my skills and attending more training courses in project management in the future.
6.	Overall, there are highly skilled project managers in the construction sector.
7.	The success of a project depends on the level of education and training that the manager of the project has in project management.

The second section also consisted of two parts. Part A asked respondents about their organisational practices and availability of education and training courses to their employees. A five-point Likert type scale ranging from “Strongly agree” to “Strongly disagree” was used. The organisation assessment items are presented Table 5. Part B of the second section of the questionnaire assesses the overall training courses in which project managers participated within the past three years. The training assessment items are presented in Table 6. The respondents were asked to rate each item on a five-point scale ranging from “Excellent” to “Poor”.

Table 5*: Organisational assessment questions to project mangers*

1.	My organisation offers project manager a wide variety of training opportunities .
2.	My organisation places great emphasis on linking training and performance improvement processes to the strategic direction of the organisation.
3.	My organization provides enough training for project managers.
4.	My organisation has received adequate project managers education and training.
5.	My organization can afford to pay for training.
6.	My organisation needs more training in order to improve our implementation.
7.	There is a pressure from CEO to measure results of our training and performance improvement programmes.
8.	Overall, I am satisfied with the level of education and training that my organisation provides.

Table 6*: Training assessment questions to project managers*

1. The appropriateness of training courses to meeting your needs.
2. Knowledge and professionalism of training personnel
3. The quality of training courses.
4. The amount of time devoted to training
5. Overall value of training in helping you improve your professional effectiveness.
6. Training courses have improved one or more of my management skills.
7. Your overall assessment of training courses.

The final section of the questionnaire elicited personal, demographic and economic characteristics information from the respondents. Such information was deemed necessary to achieve the objectives of the study.

3.2 STUDY POPULATION AND SAMPLING

The population of this study includes all project managers working in the State of Kuwait. Due to the lack of a sampling frame from which a random sample can be drawn, a convenient sampling approach was used in this study. Initially, for being the most competitive construction zones for many construction companies in Kuwait, five main locations (Sharq, Al-Sheab, Al-Salmia, Al-Khairan and Kuwait City) were selected. Due to time and recources constraints, it was decided that 20 project managers from each location would be chosen to participate in the study. The identification of these subjects was based on personal connections that the authors had with people working in the selected locations. For the distribution of the questionnaires, a drop-off method was employed; the author personally handed in the questionnaire to each subject in each location, and then picked them up a week later. All participants were informed about the purpose of the study and were assured of confidentiality and that their participation is voluntary. Out of the 100 distributed questionnaires, 80 were returned and usable, yielding a response rate of 80 percent. Achieving this high response rate is due to the personal connections that the

author had with certain people in each of the selected locations who volunteered to follow-up the questionnaires and collected the filled ones. Those 20 project managers who did not fill in the questionnaires within the specified time did not have the time due to their busy schedules or they traveled in business-related trips. The data collection was conducted over a two week period in the early part of November 2007. The questionnaire took approximately 15-20 minutes to complete.

3.4 STATISTICAL ANALYSIS

The collected data were tabulated and analyzed using SPSS version 16. Initially, a comprehensive data file was created, and then variables were defined and assigned specific labels. The statistical approach employed in the analyses of the collected data is based on univariate techniques mainly frequencies, means as a measure of central tendency, standard deviations as a measure of dispersion, and correlations. Frequencies were used to describe the demographic characteristics of the respondents, the number of training courses that the respondents have attended in the last three years, and the overall statisfaction of the respondents with the level of training in their organisations. Means and standard deviations were calculated for all items related to project managers' skills and experiences, and organistional and training assessments. Pearson's product-moment correlations were computed to uncover the strength of the relationships among the project managers' skills and among these skills with the variable depicting the number of training courses.

CHAPTER 4

RESULTS AND DISCUSSION

This chapter presents data analysis and results form the empirical work. The chapter is divided into five main sections: namely, data analysis and results, project manager skills, project manager experiences, organisational assessment, training assessment. The chapter is concluded with a summary of this study's findings.

4.1 DATA ANALYSIS AND RESULTS

Eighty Kuwaiti project managers participated in this study. All of these participants were working in the construction sector and vital projects, and the range of their ages was between 31- 39. Table 7 presents the demographic characteristics of this study's subjects. Most of the sampled project managers were male (75%) and only 25% are female. This result is understandable since work in the construction sector requires certain physical characteristics that most females cannot cope with. In terms of age, the majority of the respondents were between 31-39 years of age (40%). With regard to education, nearly 23.8% of the respondents hold diplomas (associate degrees) where 32.5% of the respondents hold university degrees and nearly 23% had completed secondary school. The salaries of 47.5% of the respondents fell in the range between 1000 K.D to 1500 K.D, and more than 33% of the respondents made more than 1500 K.D a month. About 30% of the respondents had less than 5 years of experience. The work experience of nearly 34% of the

respondents ranged between 10 to 20 years. Only 6.3% of the respondents had more than 20 years of experience in the construction sector.

Table 7*: Demographic Characteristics of Respondents*

Demographic factors		Frequency	Percent
Gender	Male	60	75.0
	Female	20	25.0
	Total	80	100
Education	Less primary school	7	8.8
	High school	19	23.8
	Two year college (Diploma)	19	23.8
	Undergraduate Degree (Bachelors)	26	32.5
	Postgraduate Qualification	7	8.8
	Missing	2	2.5
	Total	80	100
Age	Between 20 to 25	4	5.0
	Between 26 to 30	14	17.5
	Between 31 to 39	32	40.0
	Between 40 to 49	23	28.8
	Above 50	7	8.8
	Total	80	100
Income (monthly)	Less that 600 K.D*	7	8.8
	Less that 1000 K.D	8	10.0
	Less that 1500 K.D	38	47.5
	Less that 2000 K.D	17	21.3
	Above that 2000 K.D	10	12.5
	Total	80	100
Total experience	Less than 5 years	24	30.0
	Between 5-9 years	22	27.5
	Between 10-14 years	19	23.8
	Between 15-20 years	8	10.0

	More than 20 years	5	6.3
	Missing	2	2.5
	Total	80	100

* 1 K.D = 1.9 Pounds.

The numbers of training courses that the respondents have attended in the last three years are shown in Table 8. About half of the respondents (49 %) participated in at least one training session in the last three years, and 6% did not receive any training within the last three years.

Table 8*: Number of Training Courses in the Past Three Years*

Number of training course	Frequency	Percent
None	5	6%
One	39	49%
Two or Three	27	34%
Three or Four	8	10%
Five or more	1	1%
Total	*80*	*100%*

4.2 PROJECT MANAGER SKILLS

In today's competitive and global construction environment, the success and failure of an institution is often determined by the presence of effective leaders with a broad business perspective. Table 9 presents descriptive statistics related to project managers' skills. These results highlight the fact that project managers deem that their leadership, team building and coping skills are high and that these skills are important for a project manager to

possess. Table 9 reveals that that Leadership Skills had a mean of 4.6, listed at the top of the list. Thus, a Leadership skill was considered the highest skills by Kuwaiti project managers, followed by Team Building and Coping skills. Trent (2004) reports that team building skills is vitally important in those organisations that make substantial use of teams as the team leader may exert a disproportionate effect on the success or failure of work teams.

Table 9: *Project Managers' Skills*

Descriptive Statistics	Mean	SD Deviation
Leadership Skills	4.6	0.5
Team Building Skills	4.4	0.5
Coping Skills	4.3	0.6
Communication Skills	3.7	0.7
Organisational Skills	3.4	0.6
Technical Skills	3.1	0.8

According to Mason (2004, 2005), the existence of high levels of technical skills encourages UK firms to invest relatively early in new technologies that could be implemented in projects, and enables construction firms to be active in relatively high value added activities involving high degrees of customization. Project managers with high technical skills can be more prepared to deal with conceptual ideas and encourage a closer interaction between professional engineers and the technical workforce. However, the result of the current study showed that the respondents reported the lowest mean in regard

to Technical Skills (3.1) with the highest variability (0.8). This results makes one wonders whether the existing system for educating project managers in Kuwait has been adequately managed to provide present project managers with the necessary tools, techniques and skills to qualify them for future project leadership.

Table 10 shows significant correlations between the number of training courses attended in the last three years and the identified skills of project managers. No statistically significant correlation was found between the number of training courses and communication skills. This finding could imply that improving communication skills was a neglected aspect of the training courses that the respondents have attended. Based on this, it is recommended that training centres as well as training units direct more attention to improving the communication skills of present project managers. Thus, increasing training courses and education may help improve Kuwaiti project manager's skills. As the previous analysis shows, technical and organisational skills were the lowest project managers skills in Kuwait, these two types of skills are statistically significantly correlated with the number of training courses. The highest correlations were found between number of training courses attended and organisational and coping skills.

Table 10*: Correlation between number of training courses and project management skills*

Technical Skills	Coping Skills	Leadership Skills	Team Building Skills	Organisational Skills	Communication Skills		How many training courses that you involved within the past three years?
.245*	.671**	.460**	.255*	.782**	0.031	Pearson Correlation	
0.029	0	0	0.023	0	0.784	Sig. (2-tailed)	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 11 examines the interrelationships among the identified six skills of project managers. Such an examination helps in determining which skills that should be focused on and how these skills will increase the overall skills of project managers. In other word, if training centres designed training programme and focused on developing one management skills (e.g. leadership skills), how could this skills development affect the other skills of project managers? Training courses that aim at improving project leadership skills are expected to affect technical skills, and vice versa.

Table 11*: Correlations among Project managers Skills*

Correlations						
Technical Skills	Coping Skills	Leadership Skills	Team Building Skills	Organisational Skills	Communication Skills	
						Communication Skills
					0.125	Organisational Skills
				0.002	-0.168	Team Building Skills
			.229*	.413**	0.096	Leadership Skills
		.645**	-0.075	.610**	-0.192	Coping Skills
	0.029	-.434**	-0.077	0.02	-.429**	Technical Skills

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The result of the current study showed that technical skills are statistically significantly negatively correlated with communication and leadership skills. One possible explanation for such inverse relationships could be that project managers who are technically-oriented are less concerned with improving their communication or leadership skills. Leadership skills are statistically significantly positively correlated with organisational, team building and coping skills. The positive direction of these relationships is quite logical since those who assume leadership positions are expected to have organisational skills that allow them to manage their units efficiently. Moreover, those with leadership orientations are expected to be able to cope with administrative problems and to form teams to carry out required

work. The last significant correlation is between organisational skills and coping skills. This relationship also is logical since administrative problems take place within the organisational setting, and thus organisational skills are necessary for handling these problems so that the overall work of the organisation does not get affected in a negative manner.

4.3 PROJECT MANAGER EXPERIENCES

Descriptive statistics of the project managers' experiences are shown in Table 12. The lowest reported mean score of the opinions of surveyed project managers was related to whether skills are more important than education in project management. That is, the respondents believe that education is more important than skills gained through experience. However, Table 12 indicates that the respondents are highly interested in improving their skills in project management if training opportunities are offered. The mean score of the statement that 'a successful project depends on the level of education and training in project management' is quite high (x= 4.56), implying that the respondents believe in the need for a combination of academic preparation in project management and training in topics related to that area. This result is consistent with the high mean score of the statement that 'project managers need to hold a certificate in project management.'

Table 12*: Project Managers' Experiences*

Items	Mean	Std. Deviation
1. The skills are more important than education in project management to the employee who work in construction industries.	2.87	0.774
2. Overall, there are highly skilled project managers in the construction sector.	2.91	0.889
3. The employee who works in the site should be more experienced in project management than another who works in the office.	3.88	0.986

4. Working in the construction sector requires a project manager to be an expert in project management.	4.1	0.805
5. It is important for a project manager in the construction sector to hold a certificate in PMP.	4.56	0.499
6. The success of a project depends on the level of education and training that the manager of the project has in project management.	4.56	0.633
7. I am interested in improving my skills and attending more training courses in project management in the future.	4.59	0.63

When asking project managers about if successful project is only related to the high level of education and training in project management, nearly 93% of the respondents provided positive responses as shown in Table 13.

Table 13*: Education and training in project management*

The success of a project depends on the level of education and training that the manager of the project has in project management.	Frequency	Percent
1. Neutral	6	7.5
2. agree	23	28.8
3. Strongly agree	51	63.8
Total	80	100.0

This represent high ratio or agreement about the importance of education and training courses to project managers, in the same basis project managers strongly agree of their interest in having training courses in future, with mean of 4.59 Kuwaiti project managers believe the importance of education and training in construction sector. With mean of 4.56 Kuwait project managers also believe the importance to a manager in construction industries to have a certificate in PMP. With 4.1 mean, project managers believes that Work in construction sector need to be an expert in project management. (30%) of project

manager are strongly agree with this statement and (28%) agree. Table 14 shows these frequent.

Table 14*: Expert in project management*

Working in the construction sector requires a project manager to be an expert in project management.	Frequency	Percent
1. Neutral	22	27.5
2. agree	28	35.0
3. Strongly agree	30	37.5
Total	80	100.0

When asking project manager about the following statement, 'The employee who works in the site should be more experienced in project management than the employee who works in the office,' 72.6% of the respondents agreed and strongly agreed while 13.8% were natural and 13.8% disagreed. These frequencies are shown in the Table 15.

Table 15: *Site Employees vs Office Employees*

The employee who works in the site should be more experienced in project management than another who works in the office.	Frequency	Percent
1. Disagree	11	13.8
2. Neutral	11	13.8
3. Agree	35	43.8
4. Strongly agree	23	28.8

The employee who works in the site should be more experienced in project management than another who works in the office.	Frequency	Percent
1. Disagree	11	13.8
2. Neutral	11	13.8
3. Agree	35	43.8
4. Strongly agree	23	28.8
Total	80	100.0

One of the unanticipated results of project managers' experiences is that 25% of Kuwaiti project managers deem that there are high skills project managers in construction sector. While 35% disagreed. 40%of then are neutral.

Table 16: *Overall skills*

Overall, there are highly skilled project managers in the construction sector	Frequency	Percent
1. Strongly disagree	2	2.5
2. disagree	26	32.5
3. Neutral	32	40.0
4. Agree	17	21.2
5. Strongly agree	3	3.8
Total	80	100.0

Finally, 33.7% of project managers believe that the skills are not more important than education in project management to the employee who work in construction, while only 22.5% deem it is important.

Table 17*: Skills vs Education*

The skills are more important than education in project management to the employee who work in construction industries.	Frequency	Percent
1. Strongly disagree	1	1.2
2. disagree	26	32.5
3. Neutral	34	42.5
4. agree	18	22.5
5. Missing	1	1.2
Total	80	100.0

4.4 ORGANISATIONAL ASSESSMENT

In most organisations today, where competitive advantage is tied to rapid and effective development of products or services, projects are generally the mechanisms of this delivery. Organisations can no longer afford the luxury of allowing a PM's knowledge and experience to just evolve naturally. They must always be aware of the need to act to ensure that an individual's knowledge becomes part of an organisation's knowledge and ensure the continue training programme to its employees it achieve organisation goals and objectives.

Thus an organisation should not put a project at risk by assigning someone who does not have the capabilities necessary to ensure success. If these skills manager are not available, then organisation should make sure of the sufficient training programme and hiring well-educated managers. Table 18 reveals the organisational assessment result.

Table 18*: Organisational assessment*

Descriptive Statistics	Mean	Std. Deviation
1. My organisation places great emphasis on linking training and performance improvement processes to the strategic direction of the organisation.	2.25	1.085
2. My organisation provides enough training for project managers.	2.27	0.811
3. Overall, I am satisfied with the level of education and training that my organisation provides.	2.32	1.1
4. My organisation offers project manager a wide variety of training opportunities.	2.49	0.886
5. There is a pressure from CEO to measure results of our training and performance improvement programmes.	2.56	0.84
6. My organisation has received adequate project managers education and training	3.12	0.624
7. My organisation can afford to pay for training.	4.48	0.656
8. My organisation needs more training in order to improve our implementation.	4.71	0.457

Analysis the statistical data reveals unsatisfactory level of Kuwaiti project managers about their organisation and the construction sector overall in enhancing education and training courses to enhance employee skills. With a mean of 2.25, project managers see that there is no focus on linking training and performance improvement processes to the strategic direction of the organisation. In the same basis, with a mean of 2.27, they agree that their organisation provides not enough training for project managers. Overall project managers are not satisfied with the level of education and training that construction sector provide.

Table 19 shows that only 18.8 percent of project managers are satisfied with the level of education and training that their organisation provides. In addition, 56.2% are disagreeing

and strongly disagreeing. This high percentage shows the lack of construction sector in state of Kuwait for the proper training courses and the level of education.

Table 19: *Overall project managers' satisfaction*

Overall, I am satisfied with the level of education and training that my organisation provides.	Frequency	Percent
1. Strongly disagree	24	30.0
2. disagree	21	26.2
3. Neutral	20	25.0
4. agree	15	18.8
Total	80	100.0

Project managers express that their organisation is a large organisation with a wide variety of training programmes (2.49 mean). The result of the study suggests that there is little pressure from CEO to measure results of project manager training and performance improvement programmes. Project manager see that their organisation has received adequate project managers education and training (3.12 mean).

The interesting finding here is that most of project managers admire that their can afford to pay for training, with mean of 4.48, (56.2%) of project manager strongly agree and (35%) agree of their organisational capability of affording training courses.

Table 20: *Organisation Affording to Pay for Training*

My organisation can afford to pay for training	Frequency	Percent
1. Neutral	7	8.8

2. agree	28	35.0
3. Strongly agree	45	56.2
Total	80	100.0

As result, project managers believe that their organisation needs more training in order to improve their implementation. With 4.71 mean, (56%) of project managers see the urgent concentration training courses to enhance and improve project managers' skills.

4.5 TRAINING ASSESSMENT

This section discusses the result of the survey and explores the appropriate training courses offered and its use by construction sector employees. Table 21 shows the local training assessment nevertheless the result shows poor rating for the amount of time dedicated to training (2.99 mean), training courses provided have slightly improved one or more of managers management skills (3.47 mean).

Project managers of construction sector agree that the value of previous training in improving their professional effectiveness (3.53 mean). Project managers are rating training courses overall with 3.62 mean. The appropriateness of training courses, the quality of training courses and training personnel means are 3.63, 4.01 and 4.39 representatively.

On the other side the project manager give a normal result to the quality of the training course 4.01 and high result 4.39 to training personnel and the degree of their sufficiently knowledgeable and professional.

Table 21*: Training Courses Assessment*

Descriptive Statistics	N	Mean	Std. Deviation
1.The amount of time devoted to training.	78	2.99	0.933
2.Training courses have improved one or more of my management skills.	80	3.47	0.842
3.Overall value of training in helping you improve your professional effectiveness.	78	3.53	0.785
4.Your overall assessment of training courses.	77	3.62	1.181
5.The appropriateness of training courses to meeting your needs.	78	3.63	0.486
6.The quality of training courses.	78	4.01	0.674
7.Knowledge and professionalism of training personnel.	80	4.39	0.703

4.6 SUMMARY

The present study has empirically confirmed a shortage in the provision of training courses for Kuwaiti managers in the construction sector. Furthermore, this study identified a lack of awareness of organisations and strategy for the importance of training and learning and improving employee skills. The training courses are limited and improperly meet the needs of project managers.

The results of skills assessment suggest that more emphasis should be placed on Technical Skills (x= 3.1), Organisational Skills (x= 3.4) and communication skills (x= 3.7). The mean scores of Leadership Skills (x= 4.6), Team Building Skills (x= 4.4) and Coping

Skills (x= 4.3) as reported by the respondents are high in the construction sector in the State of Kuwait.

The experiences of project managers show high levels of agreement about the importance of education and training courses to project managers, and the respondents expressed high interest to enroll in training courses in the future. The results of project manager's experiences reveal that project managers believe that skills as well as education are very important in project management in the construction sector. Kuwaiti project managers believe that there are highly skilled project managers in the construction sector and the employees who work on the site are more experienced than those employees who work in the office.

The project managers perceive a lack of training courses and education in their strategy direction. Thus, changing construction sector strategy and focusing on human development is needed. The construction sector should focus more on developing and designing the proper training courses that could enhance project managers' skills and implementations, such as giving high priority to enhancing the communication skills of project managers.

Finally, training assessment suggests that training courses have provided slightly improved one or more of managers' management skills. However, the employees of the construction sector admit the value of previous training in improving their professional effectiveness. The assessment of training courses reveals a shortage of training time and that project managers place great emphasis on education and training courses to contribute to their work and implementation.

CHAPTER 5

SUMMARY AND CONCLUSION

This dissertation presents the results of a survey of 80 project managers in the State of Kuwait during November 2007. It provides a means to understand and respond to the need of project managers in gaining knowledge in developing skills and competencies. It should be noted in this final chapter that several previous studies have been conducted on this topic. However, these were based on USA, UK and other developed countries. The study reported here is specific to the State of Kuwait and to the construction sector. It reflects the

current view of background, qualification and experiences of project managers in the State of Kuwait and identifies the skills that project managers must possess to complete work in their organisations. This knowledge is likely to be of a value for organisations, training institutions and people who intend to be involved in project management. In particular, it is likely to be of a value for the project management sector and training institutions when designing future post graduate educational programmes or training courses. This knowledge may also be helpful when recruiting project managers in the construction field in the State of Kuwait.

5.1 PROJECT MANAGEMENT SKILLS

Project management skills are essential for project managers as well as any other managers who manage complex activities and tasks where different outcomes are possible, requiring planning and assessing options, and organising activities and resources to deliver a result. One of the main objectives of this dissertation is to assess the level of project manager's skills and their implementation in the construction sector. The finding argues that in order to improve the Kuwaiti construction industry, technical, organisational and communications skills should be improved.

The findings of the current study disclose a weakness in the technical skills of Kuwaiti project managers. Technical skills are low due to a lack of sufficient experiences in the construction sector and proper training courses. Rapid changes in technology negatively affect project managers' technical skills. With the ever increasing use of computer software's in the construction field, project managers have become concerned with how to handle these hundreds of applications and software. The result of the current study are

consistent with previous finding of Alimpich (2001) who explained that the creative project managers exhausted in computer software (e.g. CPM and resource allocation) with the result that their technical skills are diminished. This finding also concur with the results of William (2004) who suggested that technical skills are the mostly needed by project managers in the foreseeable future.

One interesting finding of the present study is the absence of correlation between the number of training courses and communication skills in the construction sector. This could be construed as a deficiency of institutions and training centres to address communication skills. Most of previous training courses provided in the State of Kuwait are focused on organisational skills, coping skills and leadership skills. Furthermore, the finding suggests that communication skill is an area in which project managers still have a need for improvement. This is perhaps one of the areas in which further training can be beneficial. For example, training centres may offer training courses in communication skills to provide project managers with the opportunity to diagnose the effectiveness of the communication skills in their organisations and encourage them to identify ways in which these communication skills can be improved. Training activity may also be used as a stand-alone training session or as part of a workshop on communication skills.

Humphrey and Stokes' (2000) survey showed that communication skills are the most important skill to carry out construction work. According to FMI (2005) survey, the top internal items that mostly influence attempts to improve the productivity of project manager's were: lack of communication skills at the field management level and poor communication between project managers. Previous studies (e.g. Vivek 2003) explained

that “lack of communication” or “miscommunication” creates a problem in construction environment. Although companies train their professionals on communication skills, there are always problems during their implementation.

In addition, there are many nationalities of employees who conduct construction work in the State of Kuwait That is, project managers might have culturally different backgrounds. Therefore, the expectations of the timing and manner of communication are different. Vivek (2003) explained that most of the time managers and leaders are not well acquainted with the culture of the region and the people whom they would be managing in the future. This often backfires and leads to serious problems in communication between project managers and the workforce.

Finally, the result of the current study showed high leadership skills. This confirms the findings of Zimmerer and Yasin (1998) who reported that American project managers are the highest rated characteristics for their leadership skills. The author argues that because of the dominance of family-owned construction companies in the State of Kuwait, project managers are often promoted to the highest position of their family-owned construction. Organisations in the construction sector should recognise that although the project managers have high leadership skills, other project management skills needed to carry out construction work are weak (e.g. technical skills).

5.2 PROJECT MANAGERS EXPERIENCES

The acute shortage of experienced staff and the difficulties of attracting expertise have forced Kuwaiti construction firms recently to look for new talent from other countries,

mostly from Asia. A growing number of project managers are now recruited from new markets in Asia as well as the Arab world, notably Egypt. The Ministry of Planning in Kuwait showed that the total number of engineers is nearly 26, 5 thousand, about only 6,5 thousand of whom are Kuwaitis. According to a recent report, Kuwaitis managers and supervisors numbered 57,5 thousand while the number of foreign workers in this group is about 93 thousand.

It has been reported that the number of professionals in the Kuwaiti engineering sector was about 13 thousand in technical professionals and other nationalities are around 23 thousand. Head officers in the organisations are urged to encourage and supports Kuwaiti project managers and they should give them more chance to improve themselves. The Kuwaiti government should take the responsibility to enhance and maintain the numbers of Kuwaiti employees in the construction sector (e.g., give these employees extra allowance and privileges).

However there is a lack of experience in the construction field, and the present study intended to explore some important issues related to project managers' experiences. The result of project manager's experiences indicated high ratio or agreement about the important of education and training courses to project managers, and how these training courses enhance their contribution in the construction field. The survey show a high score of project manager who hold the view that it is important to have PMP (x= 4.56) Thus, Kuwait Engineer Society should offer more PMP course than a twice year to develop project managers skills and their implementation in the construction sector.

The surveyed project managers regard construction sector as lacking of emphasis on training and education in their strategic direction. Thus, changing the existing construction sector strategy by focusing more on human development is needed. They consider that their organisations can afford covering the expenses of training courses. Project managers thus, believe that their organisations need more training in order to improve their implementation in project. Project managers argue that if their organisations provide the skills and tools that could improve their knowledge and experiences, a larger percentage of projects could be delivered more effectively and efficiently. This would not only benefit the organisations themselves but could also improve the profile of project management as a profession and increase the capability as well as the awareness of project managers.

5.3 ORGANISATIONAL ASSESSMENT

The findings suggest that construction organisations should put more emphasis in improving project manager’s implementation as well as understanding how to manage projects effectively. The lack of organisational support is a driving concern that 'the brightest practitioners have a fear of trying the project management route' and 'the individuals fear' are often ill prepared to take on the responsibility of managing a project and the team (Pressman, 1998). Pressman explained that the consequence of poor project management is the main cause of project failure, and correcting the situation requires training in advance to handle construction sector work.

The current study suggests that the Chief Executive Officers (CEO’s) should give more attention to project manager's requirements by providing appropriate training courses that

improve their skills and overcome weakness and inefficiency. By increasing number of training courses, in the long term, construction firms would benefit from their employees skills and knowledge. If construction companies focus on developing their local project managers, the number of recruiting foreign workers could be reduced. Thus, giving education and training a high strategic priority is a must.

The author argue that organisations in the construction sector should recognise that improving human resources skills and knowledge will increase the numbers of projects that could be delivered more effectively and efficiently in the local market as well as internationally. Progress in human resources achieved only when the construction organisations focused on the sustained process of providing project managers and their staff with education and training programmes. Organisations should consider their development approaches for project managers as a large portion of their resources go into projects. The current study showed the importance of developing the current project managers' skills, and how this may affect project outcomes in the construction field in the State of Kuwait.

5.4 TRAINING ASSESSMENT

Training represents essential knowledge required to handle various challenges faced by project managers. Another objective of this study was to assess the availability level of training courses in Kuwaiti construction sector. The findings of the training assessment indicate a shortage of training time. Training courses provided have slightly improved one or more of manager's management skills. The findings also show that most of training courses provided focused on coping with problems and organisational aspects, but these skills are not sufficient in themselves to minimize risk and ensure a successful project.

Institutions and training centres in the State of Kuwait should recognise the unique circumstances often faced by the typical project managers, such as team members often work part-time on the project, having other responsibilities and reporting to other managers. This may mean that they have very little motivation to support the project and other pressures that seem more important to them. Training centres then should be more flexible and provide enough amount of time to the courses provided.

There is a need for communication skills to be included in the curriculum of both education and training programmes. Institutions should also provide a wide range of training courses to meet the training needs of project managers in the construction industry. The training courses should be based on competencies required for successful project management. As a suggestion, online sessions may provide a range of soft skills tools and techniques that project managers can use to overcome many projects hurdles (e.g. time flexibility).

5.5 RECOMMENDATION FOR FUTURE RESEARCH

Due to the exploratory and descriptive nature of this study, there are limitations and some more opportunities and suggestions for further research on project management skills. One of main limitations of this study is the small size of sample used, and the few statistical tools employed. Another limitation of this study is that the generalaisability of its results should be approached with caution due to the convenient sampling approach used to draw the participants. Thus, for future studies, it is recommended that a large scale quantitative study could be conducted to enhance the statistical data and presentation.

There are many different opportunities to extend this study. For example, further research on project management skills can focus on issues on how different socio-demographic variables impact on project management skills (e.g. age, religion, income). Another opportunity may investigate whether the project management skills differ by counties in the Middle East counties. A further avenue to extend this research is to study different managerial skills (e.g. problem solving, emotional intelligence and contract management skills) to enhance our understanding of project management skills.

REFERENCES

Ahmed, Saram, D., 1998, 'Implementing and maintaining a quality assurance system a case study of a Hong Kong construction contractor', 3rd International Conference on ISO 9000 and Total Quality Management, Hong Kong, pp.450-6.

Ahmed, K., 2002. Enhancing Links Between Education & Labor Markets in Arab Countries. Arab Planning Institute, [Online]. Available at: www.arab-api.org/cv/ahmed-cv/ahmedcv.pdf [Accessed June 2008].

AME, 2006. 'Saudi Aviation opens up to private investors', [Online] (Updated 2007). Available at: www.ameinfo.com/75396.html [Accessed 9 January 2008].

AME Info, 2006. 'Kuwait construction industry - hitting new heights,[Online] (Updated 2009). Available at: http://www.ameinfo.com/93643.html [Accessed 14 Feb 2009].

A.K. Roy, 2007. Project Management, First Edition.

Aaron, W., Hughey, Kenneth, J., 1997. Mussing Training for Quality. Research paper Vol. 5 No2, pp. 10-15.

Andy Bruce, Ken Langdon, 2000. Project Management, First Edition.

Alimpich, et al., 2001. Data processor controlled display system for the control of operations with properties which are constant or variable. [Internet] Feb 2001. Available at: http://www.freepatentsonline.com/6181340.html [Accessed 7 July 2008].

Azzam, H., 1998. Financial deepening in the Arabia Gulf region. In Devlin, J., (eds), Gulf Economies: Strategies for Growth in the 21st Century. UAE: The Emirates Center for Strategic Studies and Research Publications.

Baccarini, D., 1999. The logical framework method for defining project success, Project Management Journal, Vol. 30 No.4, pp.25-32.

Barad, M., Raz, T., 2000. Contribution of quality management tools and practices to project management performance, International Journal of Quality & Reliability Management, Vol. 17 pp.571–83.

Batten, J.D., 1992. New paradigms for a total quality culture, Training & Development, pp.46.

Batten, J.D., 1991. Tough-Minded Leadership, Amacom, New York, N.

Bird, A., 1993. One bank's approach to total quality management, The Bankers Magazine, pp.63-8.

Brendan, O., 2007. Education under attack. [Internet] January 2007. Available at: http://www.unesco.org/education/attack/educationunderattack.pdf [Accessed June 2008].

Clinton, R.J., Williamson, S., Bethke, A.L., 1994. Implementing total quality management: the role of human resources management, SAM Advanced Management Journal, pp.10-16.

Conover, W.J., John Wiley & Sons, 1999. Practical Nonparametric Statistics (3rd ed.).

David James Bryde, 2003. International Journal of Operations & Production Management. Project management concepts, methods and application Vol 23

Economic and Social Commission for Western Asia, (2001). Economic Diversification in the Oil-Producing Countries: The Case of the Gulf Cooperation Council Economies. [Online] (Updated 2008). Available at: www.escwa.un.org [Accessed June 2008].

Fallik, F., Brown, B. L., 1983. Statistics for behavioral sciences. Homewood: Dorsey Press.

Fusco, J.C., 1997. Better policies provide the key to implementing project management, Project Management Journal, Vol. 28 No.3, pp.37-43.

James P. Lewis, 2007. Fundamentals of Project Management, Third Edition.

Jawaharnesan, L., Price, A.D.F. 1997. Assessment of the role of the client's representative for quality improvement, Total Quality Management, Vol. 8 pp.375–89.

Jiang, J.J., Klein, G., Balloun, J., 1996. Ranking of system implementation success factors, Project Management Journal, Vol. 27 pp.49–553.

Knutt, E., 1997. 'China: building the economic miracle', Building, pp.18-23.

Kuwait Society of Engineer, 2000. [Online] (Updated 2009). Available on: www.kse.org.kw [Accessed 3 Nov 2008].

Kuwait University, 2000. [Online] (Updated 2009). Available on: http://www.kuniv.edu.kw [Accessed 3 Nov 2008].

Loo, R., 2002. 'Working towards best practices in project management: a Canadian study', International Journal of Project Management, Vol. 20 pp.93–8.

Low, S.P., 1995. Lao Tzu's Tao Te Ching and its relevance for project leadership in construction, International Journal of Project Management, Vol. 13 No.5, pp.295 302.

Low, S.P., Lee, S.K., 1997a. Management grid and Zhuge Liang's Art of Management: integration for construction project management, Management Decision, Vol. 35 No.5, pp.382-92.

Mason, G., 2004. 'Enterprise Product Strategies and Employer Demand for Skills in Britain: Evidence from the Employers Skill Survey', National Institute of Economic and Social Research, WP 50.

Mason, G., 2005. 'In search of high value added production: are skills the vital ingredient?', Report for the Department for Education and Skills Project on Employer Demand for Skills and High Value-Added Product Strategies, National Institute of Economic and Social Research.

McLean, J.W., Weitzel, W., 1991. Leadership: Magic, Myth or Method, Amacom, New York, NY.

Mikkelsen, H. & J.O. Riis, 1998. Grundbog i projektledelse, Promet, Rungsted, Denmark (6th edition) (in Danish)

Munns, A.K., Bjeirmi, B.F., 1996. The role of project management in achieving success, International Journal of Project Management, Vol. 14 No.2, pp.81-7.

PayScale report. [Internet] January 2006. Available at: http://www.payscale.com/research/KW/All_People_in_All_Surveys/Salary

[Accessed June 2008].

Pinto, J.K., Slevin, D.P., 1987. Critical factors in successful project implementation, IEEE Transactions on Engineering Management, Vol. 34 No.1, pp.22-7.

PMI, 2004. A guide to the project management body of knowledge (PMBOK guide), Newtown Square, Pa, Project Management Institute, Inc.

Porter, L.J, Parker, A.J., 1993. Total quality management – the critical success factors, Total Quality Management, Vol. 4 No.1, pp.13-22.

Jayne Gnadt, 2008. Project Management Starts with a Capital "C". . [Internet] Nov 2007. Available at: http://www.projectsmart.co.uk [Accessed June 2008].

Pressman, Roger, 2008. 'Fear of Trying: The Plight of Rookie Project Managers', IEEE Engineering Management Review, 26:4, pp. 18–20.

R. C. Mishra & Tarun Soota, 2005. Modern Project Management, First Edition.

Robert Loo, 2003.Benchmarking: An International Journal, Volume: 10, Issue: 1.

Slevin, D.P., Pinto, J.K., 1987. Balancing strategy and tactics in project implementation, Sloan Management Review, Vol. 29 No.1, pp.33-41.

SPSS Inc. (1999), SPSS Base 9.0Application Guide. USA, Chicago IL: SPSS Inc.

Syed and Darshi, 1998. Training and Education in Project Management Principles in the Hong Kong Construction Industry, Vol. 2, No.3

Toney, F., Powers, R., 1997. Best Practices of Project Management Groups in Large Organizations, Project Management Institute, Upper Darby, PA.

Trent, R.J., 2004. Team leadership at the 100-foot level, Team Performance Management. Vol. 10 No.5 and 6, pp.94-103.

Turner J. R. et al., 1996. The project Management as Change Agent, Leadership, Influence and Negotiation, edition 1, McGraw-Hill, UK.

United Nations Conference on Trade and Development, 2006. FDI Country Report, [Internet] 2002. Available at: www.unctad.org/Templates/Page.asp?intItemID=3198&lang=1 [Accessed Oct 2008].

United Nations Conference on Trade and Development, 2007. World Investment Report 2007 – FDI from Developing and Transition Economies: Implications for Development. New York and Geneva: United Nations. [Internet] 2002. Available at: www.unctad.org/Templates/Page.asp?intItemID=3198&lang=1 [Accessed Oct 2008].

United Nations Educational, Scientific, and Cultural Organization(UNESCO). 2003a. National Reports for 14 of the MENA and GCCcountries. Paris: UNESCO. Available at: www.unctad.org [Accessed Oct 2008].

Ventures Middle East report, 2008. [Online] (Updated 2008). Available at: www.ventures-uk.com [Accessed 3 Oct 2008].

Verma, V.K., 1996. Human Resource Skills for the Project Manager, Project Management Institute, Upper Darby, Vol. 2.

Winckler, O., 2004. Population Growth and Natalist Policies. Arab Political Demography, Brighton, UK: Sussex Academic Press, Volume One, 272 pages.

World Salaries report, 2004. Kuwait Average Salaries & Expenditures, [Online] (updated 2008). Available at: http://www.worldsalaries.org/kuwait.shtml [Accessed 20 Nov 2008].

William, 2004. Project management competencies: survey of perspectives from project managers in south east Queensland. 28 January 2004 (Version 2).

Zimmerer, T.W., Yasin, M.M., 1998. a leadership profile of American project managers, Project Management Journal, Vol. 29 pp.31–8.

APPENDIX A
QUESTIONNARE

Survey of Matching Project Management Education and Training to the Needs of the Construction Industry in Kuwait

SECTION ONE

(A)Project Managers Skills Assessment

The following items are project management skills. please indicate the level of your skills by using the following scale:

Poor 1	Acceptable 2	Good 3	Very Good 4	Excellent 5

	1	2	3	4	5
1. Communication Skills (e.g. Listening, Persuading).	☐	☐	☐	☐	☐
2. Organisational Skills (e.g. Planning, Goal-	☐	☐	☐	☐	☐

setting, Analyzing).					
3. Team Building Skills (e.g. Empathy, Motivation, Esprit de Corps).	☐	☐	☐	☐	☐
4. Leadership Skills (e.g. Set Example, Energetic, Vision, Delegates).	☐	☐	☐	☐	☐
5. Coping Skills (e.g. Flexibility, Creativity, Patience, Patience, Persistence).	☐	☐	☐	☐	☐
6. Technical Skills (e.g. Experience, Project Knowledge).	☐	☐	☐	☐	☐

(B)Experiences Assessment

Strongly disagree 1	disagree 2	Neutral 3	agree 4	Strongly agree 5

	1	2	3	4	5
1. The skills are more important than education in project management to the employee who work in construction industries.	☐	☐	☐	☐	☐
2. Working in the construction sector requires a project manager to be an expert in project management.	☐	☐	☐	☐	☐
3. It is important for a project manager in the construction sector to hold a certificate in PMP.	☐	☐	☐	☐	☐
4. The employee who works in the site should be more experienced in project management than another who works in the office.	☐	☐	☐	☐	☐
5. I am interested in improving my skills and attending more training courses in project management in the future.	☐	☐	☐	☐	☐
6. Overall, there are highly skilled project managers in the construction sector.	☐	☐	☐	☐	☐
7. The success of a project depends on the level of education and training that the manager of the project has in project management.	☐	☐	☐	☐	☐

SECTION TWO

(A) Organisational Assessment

Strongly disagree 1	disagree 2	Neutral 3	agree 4	Strongly agree 5

	1	2	3	4	5
1. My organisation offers project manager a wide variety of training opportunities.	☐	☐	☐	☐	☐
2. My organisation places great emphasis on linking training and performance improvement processes to the strategic direction of the organisation.	☐	☐	☐	☐	☐
3. My organisation provides enough training for project managers.	☐	☐	☐	☐	☐
4. My organisation has received adequate project managers education and training.	☐	☐	☐	☐	☐

5. My organisation can afford to pay for training.	☐	☐	☐	☐	☐
6. My organisation needs more training in order to improve our implementation.	☐	☐	☐	☐	☐
7. There is a pressure from CEO to measure results of our training and performance improvement programmes.	☐	☐	☐	☐	☐
8. Overall, I am satisfied with the level of education and training that my organisation provides.	☐	☐	☐	☐	☐

(B) Training and courses Assessment

Poor 1	Acceptable 2	Good 3	Very Good 4	Excellent 5

	1	2	3	4	5
1. The appropriateness of training courses to meeting your needs.	☐	☐	☐	☐	☐
2. Knowledge and professionalism of training personnel	☐	☐	☐	☐	☐
3. The quality of training courses.	☐	☐	☐	☐	☐
4. The amount of time devoted to training	☐	☐	☐	☐	☐
5. Overall value of training in helping you improve your professional effectiveness.	☐	☐	☐	☐	☐
6. Training courses have improved one or more of my management skills.	☐	☐	☐	☐	☐
7. Your overall assessment of training courses.	☐	☐	☐	☐	☐

SECTION THREE

General Background

Please provide the following information for classification purposes. Your responses will be held in strictly confidential and will only be summarised along with other respondents.

What is your age?	What is Your gender?	What is your Income?
☐ Between 20 to 25 ☐ Between 26 to 30 ☐ Between 31 to 39 ☐ Between 40 to 49 ☐ Above 50	☐ Male ☐ Female	☐ Less that 600 K.D ☐ Less that 1000 K.D ☐ Less that 1500 K.D ☐ Less that 2000 K.D ☐ More that 2000 K.D

Which one of the following best describes your formal education? (please tick one box):	How many years of total experience do you have?
☐ Less primary school ☐ High school ☐ Two year college (Diploma) ☐ Undergraduate Degree (Bachelors) ☐ Postgraduate Qualification (Master\PhD)	☐ Less than 5 years ☐ Between 5-9 years ☐ Between 10-14 years ☐ Between 15-20 years ☐ More than 20 years

How many training courses that you involved within the past three years?
☐ I did not have training courses since three years ☐ One ☐ Two to three ☐ Three to four ☐ five and more

Thank you for your assistance

APPENDIX B

استبيان حول حاجة مدراء المشاريع للتعليم والدورات التدريبية في القطاع الإنشائي في دولة الكويت

الجزء الأول

أ- تقييم مهارات مدراء المشاريع

كمدير مشاريع في القطاع الإنشائي، الرجاء اختيار الرقم الذي يمثل مستوى مهاراتك في كل من المهارات التالية حيث ما يلي :

ضعيف	مقبول	جيد	جيد جدا	ممتاز
1	2	3	4	5

	1	2	3	4	5
1- مهارات الاتصال (الاستماع، الإقناع).	☐	☐	☐	☐	☐

2- المهارات المؤسسية (تخطيط، وضع أهداف، تحليل)	☐	☐	☐	☐	☐
3- مهارات بناء فريق عمل (دوافع وحوافز)	☐	☐	☐	☐	☐
4- المهارات قيادية (تفويض)	☐	☐	☐	☐	☐
5- مهارات التعامل مع المشاكل (المرونة، الإبداع)	☐	☐	☐	☐	☐
6- المهارات الفنية (الخبرة الفنية)	☐	☐	☐	☐	☐

ب- تقييم الخبرات

موافق بشدة 5	موافق 4	محايد 3	غير موافق 2	غير موافق بشدة 1

	1	2	3	4	5
1. المهارات أكثر أهمية من التعليم لموظفي إدارة المشاريع العاملين في القطاع الإنشائي.	☐	☐	☐	☐	☐
2. العمل في القطاع الإنشائي يحتاج إلى الاحتراف في إدارة المشاريع.	☐	☐	☐	☐	☐
3. من المهم لمدراء المشاريع العاملين في القطاع الإنشائي الحصول على شهادة إدارة المشاريع متخصصة.	☐	☐	☐	☐	☐
4. الموظفين الذين يعملون في الموقع الإنشائي من المفترض أن يكونوا محترفين في إدارة المشاريع أكثر من الموظفين الذين يعملون من وراء المكاتب.	☐	☐	☐	☐	☐
5. أنا مهتم في تطوير مهاراتي والمشاركة في دورات تدريبية في إدارة المشاريع.	☐	☐	☐	☐	☐
6. بشكل عام هناك مدراء مشاريع ذوي خبره عالية في القطاع الإنشائي.	☐	☐	☐	☐	☐
7. المشاريع الناجحة يرجع نجاحها بشكل أساسي إلى مدى توفر التعليم والدورات التدريبية في إدارة المشاريع.	☐	☐	☐	☐	☐

الجزء الثاني

أ- التقييم المؤسسي

موافق بشدة 5	موافق 4	محايد 3	غير موافق 2	غير موافق بشدة 1

	1	2	3	4	5
1. المؤسسة التي أعمل فيها هي من أكبر المؤسسة التي تقدم الكثير من الدورات التدريبية.	☐	☐	☐	☐	☐
2. هناك تركيز واضح في الربط بين الدورات التدريبية وتطوير الأداء في الأهداف والإستراتيجية العامة للشركة.	☐	☐	☐	☐	☐
3. الشركة التي أعمل فيها تقدم دورات تدريبية كافية لمدراء المشاريع.	☐	☐	☐	☐	☐
4. هناك ما يفي بالغرض من مدراء المشاريع المؤهلين في الشركة التي أعمل فيها.	☐	☐	☐	☐	☐
5. الشركة التي أعمل فيها تستطيع تحمل تكاليف الدورات	☐	☐	☐	☐	☐

					التدريبية.
☐	☐	☐	☐	☐	6. الشركة التي أعمل فيها تحتاج إلى تقديم دورات تدريبية أكثر وذلك تطوير مساهمة مدراء المشاريع.
☐	☐	☐	☐	☐	7. هناك توجه واضح من قبل الإدارة العليا للشركة التي أعمل فيها لقياس نتائج الدورات التدريبية التي تقدم لمدراء المشاريع وذلك لقياس الأداء وكيفية تطوره.
☐	☐	☐	☐	☐	8. بشكل عام أنا راضي عن مستوى التعليم والدورات التدريبية التي تقدمها الشركة.

ب- تقييم الدورات التدريبية

ممتاز	جيد جدا	جيد	مقبول	ضعيف
5	4	3	2	1

5	4	3	2	1	
☐	☐	☐	☐	☐	1. مدى ملائمة الدورة التدريبية لاحتياجاتك.
☐	☐	☐	☐	☐	2. القائمين على الدورات التدريبية ومدى إلمامهم ومعرفتهم واحترافهم.
☐	☐	☐	☐	☐	3. جودة الدورة التدريبية.
☐	☐	☐	☐	☐	4. الوقت المخصص للدورة التدريبية.
☐	☐	☐	☐	☐	5. مدى أهمية الدورة التدريبية ومساهمتها في تطوير الكفاءة والاحتراف.
☐	☐	☐	☐	☐	6. الدورات التدريبية طورت مهاراتي الإدارية.
☐	☐	☐	☐	☐	7. بشكل عام مستوى الدورات التدريبية.

الجزء الثالث

المعلومات الشخصية

الرجاء الإجابة على الأسئلة التالية وذلك لدواعي التصنيف في البحث، سوف يتم الحفاظ على السرية التامة لهذه المعلومات وتستخدم فقط لأغراض البحث.

كم يبلغ دخلك الشهري؟	الجنس	العمر
☐ أقل من 500 دينار	☐ ذكر	☐ بين 20 إلى 25 سنة
☐ أقل من 1000 دينار	☐ أنثى	☐ بين 26- 30 سنة
☐ أقل من 1500 دينار		☐ بين 31-39 سنة
☐ أقل من 2000 دينار		☐ بين 40-49 سنة
☐ أكثر من 2000 دينار		☐ أكبر من 50 سنة

كم تبلغ عدد سنوات خبرتك في القطاع الإنشائي؟	ما هو مؤهلك العلمي؟
☐ أقل من 5 سنوات	☐ أقل من الثانوية العامة
☐ بين 5 إلى 9 سنوات	☐ الثانوية العامة
☐ بين 10 إلى 14 سنة	☐ الدبلوم (سنتين بعد الثانوية العامة)
☐ بين 15 إلى 20 سنة	☐ البكالوريوس
☐ أكثر من 20 سنة	☐ دراسات عليا

كم عدد الدورات التدريبية التي شارت فيها خلال الثلاث سنوات الماضية ؟
☐ لم أشارك بأي دورة تدريبية خلال الثلاث سنوات الماضية.
☐ دورة واحد.
☐ من دورتين إلى ثلاث دورات .
☐ من ثلاث دورات إلى أربع دورات .
☐ خمس دورات تدريبية أو أكثر .

شكرا لمساهمتك في البحث

APPENDIX C
ABBREVIATIONS

Accreditation Board for Engineering and Technology	(ABET)
Chief Executive Officer	(CEO)
Foreign Direct Investment	(FDI)
Gross domestic product	(GDP)
Gulf Cooperation Countries	(GCC)

Organisation for Economic Co-operation and Development	(OECD)
Project Management Body of Knowledge	(PMBOK)
Project Management Institutes	(PMI)
Project Management Professional	(PMP)
Standard Deviation	(S.D)
The Chartered Institute of Building	(CIOB)
The Kuwait Institute for Scientific Research	(KISR)
Total Quality Management	(TQM)
United Arab Emirates	(UAE)
United Nations Educational, Scientific and Cultural Organisation	(UNESCO)
Work Breakdown Structure	(WBS)